Menlo Park Notebook #78 [N-79-12-27]

This notebook covers the period December 1879-February 1880. At the beginning of the book is a series of notes by Edison on magneto machines and conductors. The rest of the book was used to keep a record of lamps in the laboratory. The entries are probably by Albert Herrick and include a drawing showing the layout of the lamps in the main laboratory building. The label on the front cover is marked "Herrick" and "Account of Lamps." Except for the first page (p. 3), the book is unpaginated. Approximately 125 pages have been used. Some pages have been torn out of the book.

No. 78

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120 BROADWAY, NEW YORK.

Library
GENERAL ELECTRIC
N.Y. Off. Lib.
June 1, 1896.

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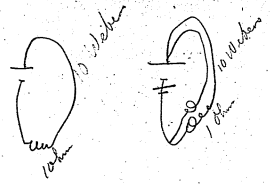
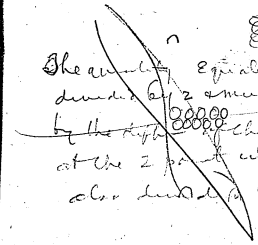


If you double the radiating surface of the Induction Coil on a magneto machine the temperature will be reduced ~~3/4 of~~

That is to say if a given magneto machine has a radiating surface of two square feet & on a given resistance reaches a constant temperature of 200, then if the size of the coil be increased to 4 feet surface the temperature will only reach 150 or in other words it will not rise

about the atmosphere,

The friction of the molecules is the cause of the heat from a wire when a current is passing ... waves of energy tend to ... the molecules' motion ... friction is heat.



The ... equals the square ... by 2 and multiplied by the ... of the pulse ... at the 2 points which is about ... 6/7.

Good Conductors such as Copper have their molecules oriented easily hence small amount of heat energy evolved by friction & ~~the Current~~ when current passes. & work is not done except at slight extent in Orientation, but with Crystalline Conductors a large amount of work must be done to Orient the Molecules & great heat is given out hence these Crystalline

bodies are poor conductors
The crystallic adhesion or
force tends to resist
Orientation,

It is probable that the
best thermo piles will be
those whose
molecular newest orientation
by electricity the most,

The energy absorbed in any
Magnetic machine
will be at the square
of the diameter of the
Bobbin the shaft speed
Remaining the same -

12 | 22 | 22 | 10 | 11 | 11

2 3 | 2 | 3.00

3 4 | 2 | 3.140

4 5 6 | 2 | 3.00

7 8 | 2

90) 201 (2 2.3
150
210
180
300
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896
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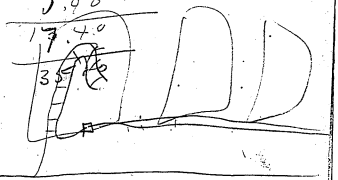
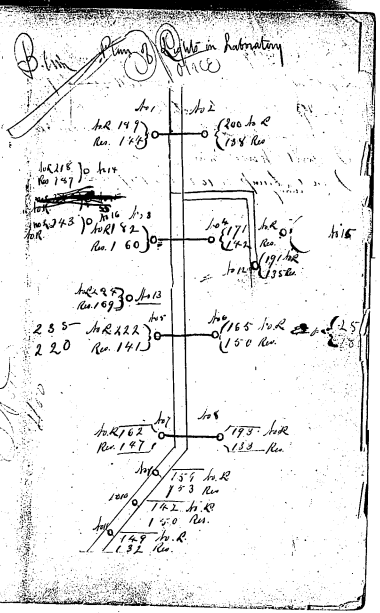
5.40
17.40
35.76

108
5
140



Record of Pumps in Laboratory

Date	Motor Compressor running	Motor Oil Pump running	Total time running	Number of Pumps running	Remarks
	hour min	hour min	hour min		
Dec 27	9 00 AM	12 00 PM	2 10	two	9 10 11 12 13
" 27	1 03 PM	4 20 PM	3 17	two	9 10 11 12 13 14 15 16
" 27	5 30 PM	9 00 PM	3 30	two	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
" 27	11 40 PM	11 56 PM	16	two	10 11 12 13
" 29	5 00 PM	9 45 PM	4 45	two	9 10 11 12 13
" 29	5 20 PM	9 45 PM	4 25	two	1 2 3 4 5 6 7 8 14 16
" 30	9 46 AM	11 05 AM	1 20	two	1 2 3 4 5 6 7 8 9 10 11 12 15
" 30	11 25 AM	11 00 M	35	"	" " "
" 30	1 01 PM	1 55 PM	5 50	"	" " "
" 30	6 00 PM	8 55 PM	3 53	two	1 2 3 4 5 6 7 8 9
" 30	8 66	10 00	6 48	two	14 15 16 10 11 12 13
" 31	3 22	10 05	6 43	two	15 16 9 10 11 12 1
" 31	5 12	10 05	4 07		1 2 3 4 5 6 7 8 9 10 11 12
Jan 1	5 30	9 30	6 48		1 2 3 4 5 6 7 8 9 10 11 12 13 14 16
Jan 2	9 25	12 00	2 35		1 2 3 4 5 6 7 9 10 11 12
Jan 3	1 15				


Plan of Pump Room in Laboratory
No 1
No 2
No 3
No 4
No 5
No 6
No 7
No 8
No 9
No 10
No 11
No 12
No 13
No 14
No 15
No 16
No 17
No 18
No R 147
Res. 148
No R 218
Res 147
No R 143
No R 142
Res. 160
No R 222
Res. 141
No R 162
Res. 147
No R 155
Res 153
No R 142
Res. 150
No R 148
Res. 152
No R 200
Res 138
No R 171
Res. 142
No R 191
Res. 135
No R 165
Res. 150
No R 195
Res. 139
No R 235
Res. 175
No R 297
Res. 169
235
220

Dec. 27

Laboratory. Lamps No 1 to Lamp 189 Res 144

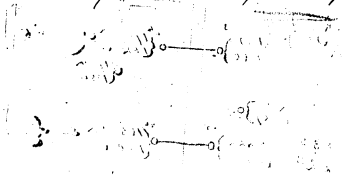
Light at light at 5:30 cutt off at 7:00

Dec 28 Burned still 9 o'clock this

A.M. also exchanged for a better cutter by

I don't know who

I am using Lamp No 162 Res. 147 in its place



Dec 27

Laboratory. Lamps No 2 to Lamp 200 Res 158

Light @ 5:30 cutt off @ 7:00

Dec 28 Cross in Crucible taken down 10 am

Rep by Ns Res Dec 30 R

Jan 1 burning Lamp No 193 Res 182

Laboratory Lamp No 3 No Lamps 152 Res. 16
Light @ $.30 cut of at 9.00

~~Jan 1 nights~~
Jan 7 "
Jan.

Labora Lamp No 4 No lamps 171 Res. 142
Light @ 5.30 cut of at 9.00 P.M.

Laboratory Lamps to 6-40 Lamps 2241 Rec 141
Light @ 9.30 cut off @ 9.00

Laboratory Lamps to 6-40 Lamps 165 Rec 150
Dec 27 Taken down stairs replaced by Lamps to 254 Rec 150 Light @ 8.30 cut off at 9.00

Dec 26 Laboratory Lamp No 7 to light 162 Res. 147
Light at 5:30 cut off at 9:00

Dec 27
Laboratory Lamp No 8 to light 173 Res. 136
Light at 5:30 cut off at 9:00
Taken the 1 Jan 1880.

Dec 27 Laboratory Lamp No. 9 Wright 1.17 Rec 1.93

Commenced burning @ 9.50 Dec 27 A.M.

Stopped @ 9.52

Dec 29 Commenced " " @ 11.40 " 29 "

Cut off at 11.50

Dec 27 Laboratory Lamp No. 10 Dyd-No 142 Rec 1.80

Commenced burning @ 2.50 Dec 27 Afte.

" " @ 11.40 " 29 "

Laboratory Lamps No 11 No Light 149 Res 192

Commenced burning @ 10.50 Dec. 27 A.M.

" " @ 10.40 " 29 " "

Cutt off at 10.50 " "

Broke on the night of the 31st Dec 9.40 P.M.

Not replaced Jan 2 1880

Laboratory Lamps No 12 Lamp No 191 Res 193

Commenced burning @ 10.50 Dec 27 A.M.

Cutt off @ 12 " "

Dec 29 Light @ 10.40 cutt off @ 10.50.

Laboratory Lamps No 13 Lamps No 224 Res. 169
Commenced burning @ 10.50 Dec. 27 A.M.
Commenced burning 120 Taken by Francis
Rep by No. 235 Res 220 28 inst.
Commenced burning @ 9.40 Cutt ~~Aft at 9.30~~
Dec 27

Laboratory Lamps No 12 Lamps No. 214 Res 157
Commenced burning @ 10.50 Dec. 27 A.M.
over work-bench Taken on the 28th and
replaced by
Dec 29
No Lamps Lamps No 15 was put in its
place for the evening
Dec 30
No Lamps 9 A.M.
Entered for Lamps 168 Res 171
No Lamps Jan 2 1880

Laboratory Lamp No 15 Lamp 240 Res

Commenced burning 10 5 0 Dec 27 09 Hr.
ooa work bench No Resistance Given
Taken on the 28th Dec. and replaced by
changed for 256 Res. not given
put in lamp No 14th plane
Dec. 30 No Lamp [illegible]
plane 2 hrs 15 M when left up for
good
Changed number for the one in
Water on table

Laboratory Lamp No. 16 Lamp no. 243 Res not known

Commenced burning @ 10 5 0 Dec. 27 09 Hr.
ooa work bench No Resistance Given
Taken on the 28 and replaced by
Exc. for 251 Res. not given.
Dec. 30 No Lamp not known 254 Res 180

12	84	5-6	78		
			all night		
768 9	9	9	9	9	Jaundice
000		811	110		
12 00	98	98	98	98	
780 a	98	98	98	98	
1200	98	98	98	98	
12 00	000	00	00	00	

Noticed 000

350 Jaundice

Noticed that there was a break

Next where the skin of the umbilicus

decreased

into the mesenteric

Next the finger into the

direction of [illegible] A-B The

direction the effect

and the finger into the

and examined [illegible]

broken

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2655 Second chronometer made
Dilke
Communicated | Jan 2 1810
by Capt al- | noon
Day | hours

Jan 31 6.5.6
Jan 31 22.10
Feb 1 6.10
2 5.10
3 5.10
4 10.10
5 6.10
6 22.10
7 22.10
8 22.10
9 11.10
100

100 Bs 1264 Money Invested before Insolvent

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108 Rec. 141 Page 21 Brussels Book: N° 1445

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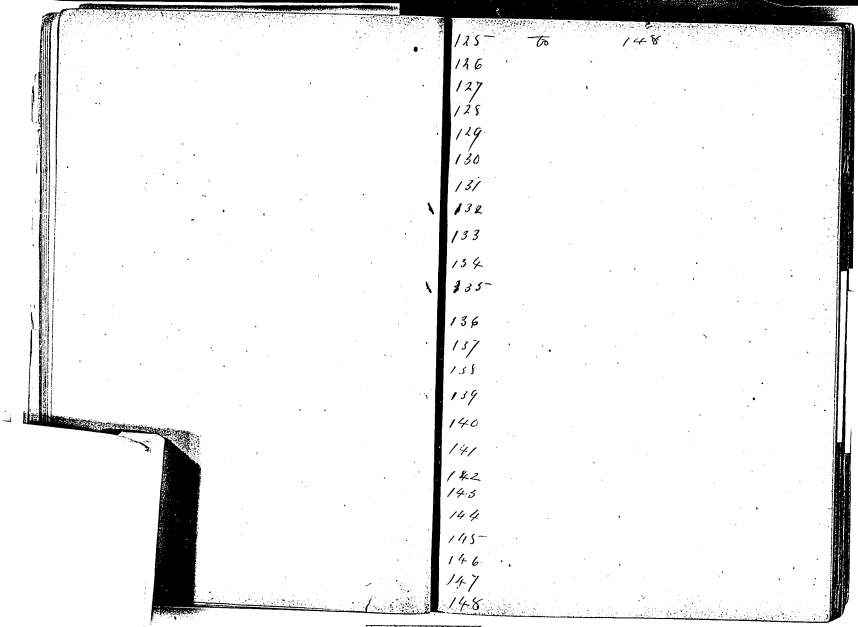
125 – to 148
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Revised and
index made

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153 Rec 132 Page 28 Brussels 406.13

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155 Rec 126 for page 4 Brussels 562.14

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158 Rec 137 Page 8

159 Rec. 153 omits. on page 1 Brake 683.45

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164 Rec. 182 page to be

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168 Rec. 147 Page 29

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170 Rec 157 Page 29

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172 Res. 135 — page 7 items brought before Council
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181 Res. 182 Page 31 Brussels 429
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184 Res 145 — Page 57 — Brussels 348
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223. Rec. 140 on page 3 Brutell Jean Baptiste 867

224. Rec 109 Page 25 Brutell 227

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270 Rev. 140 Longest Jump Page 9
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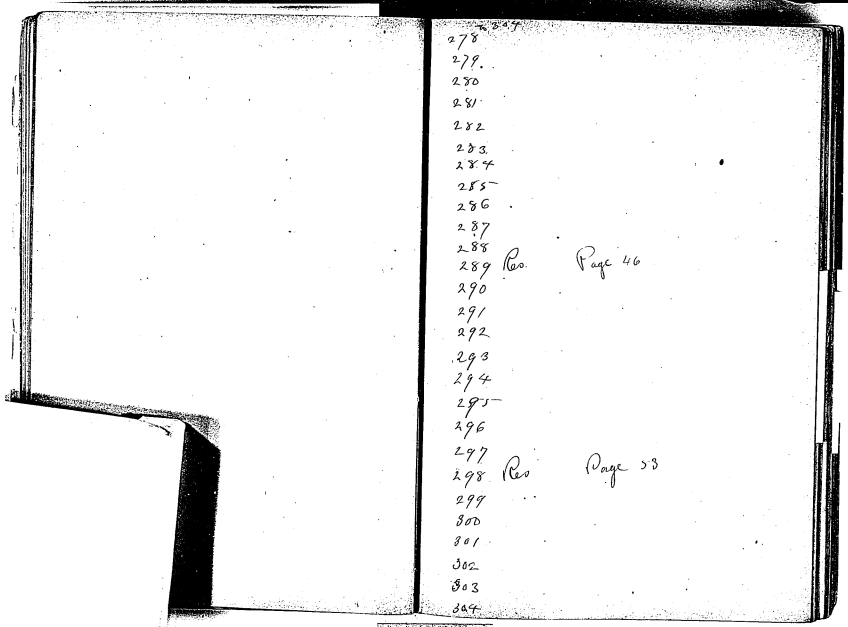
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307 Reo 242. Page 95 Sealed
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313 Reo. 135 Page 37 Sealed 435
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323 Reo 114 Page 81 Sealed 1750 yrs
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331 Reo 145 Page 41
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333 Reo 137 Page 43
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372 Reg. 125– Page 65 Bursted 262
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4431 Reso 130. Page 107 Total hours 192. Rescinded

4432 Reso 132 Page 115 Total hours 115 Rescinded

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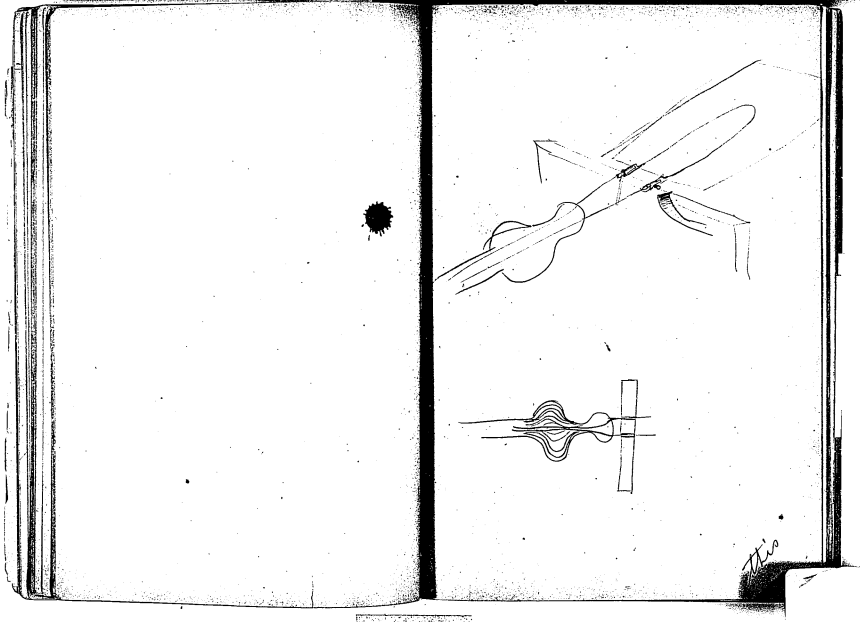

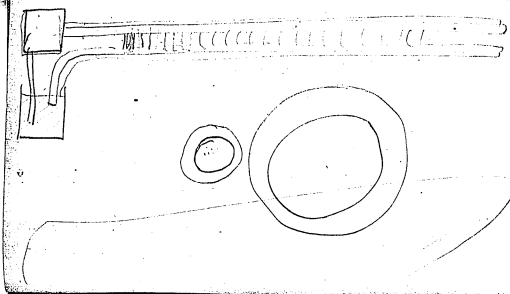

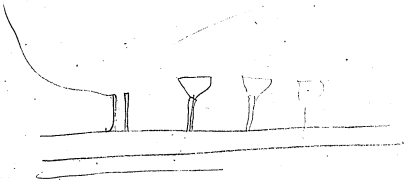

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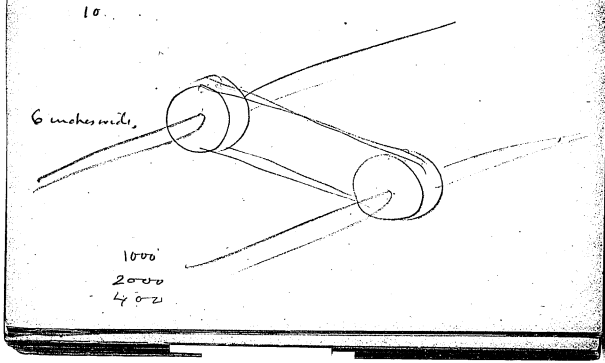
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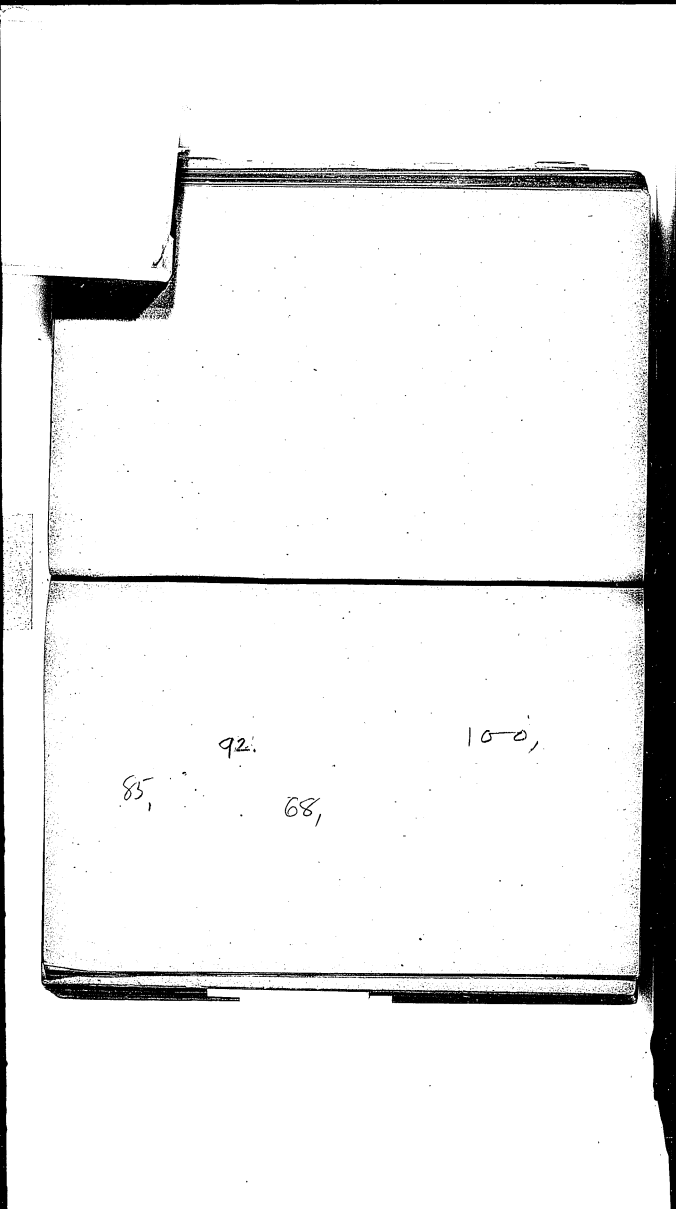
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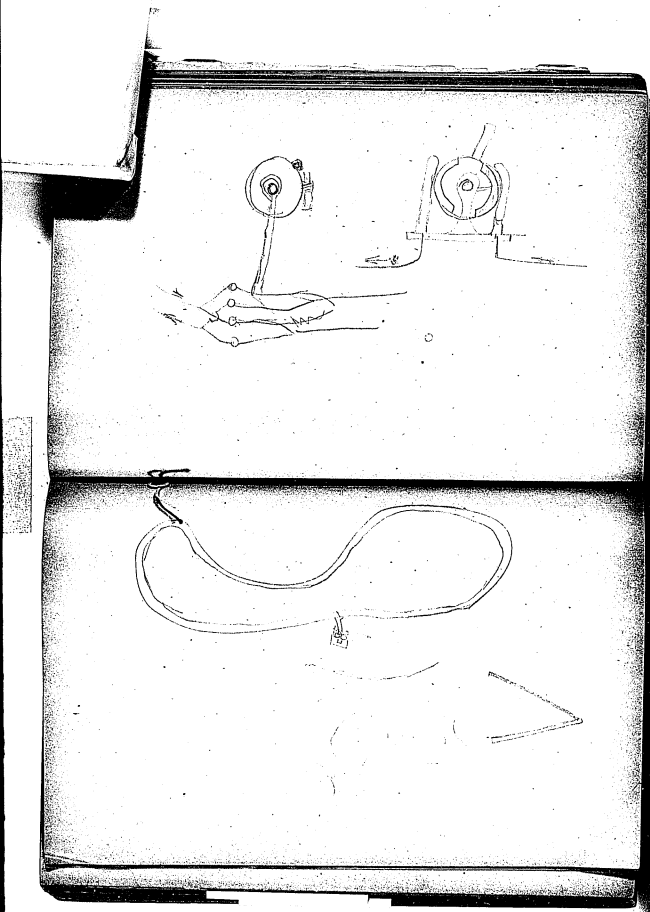

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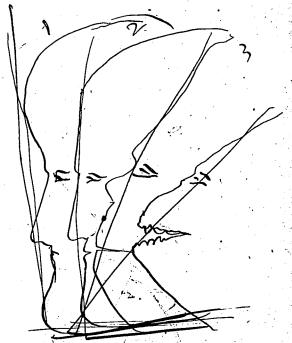

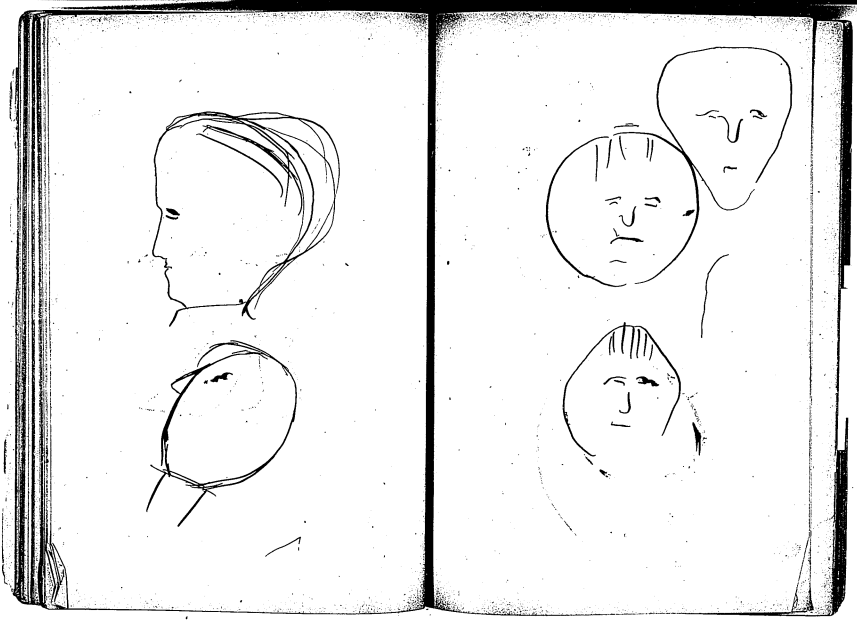

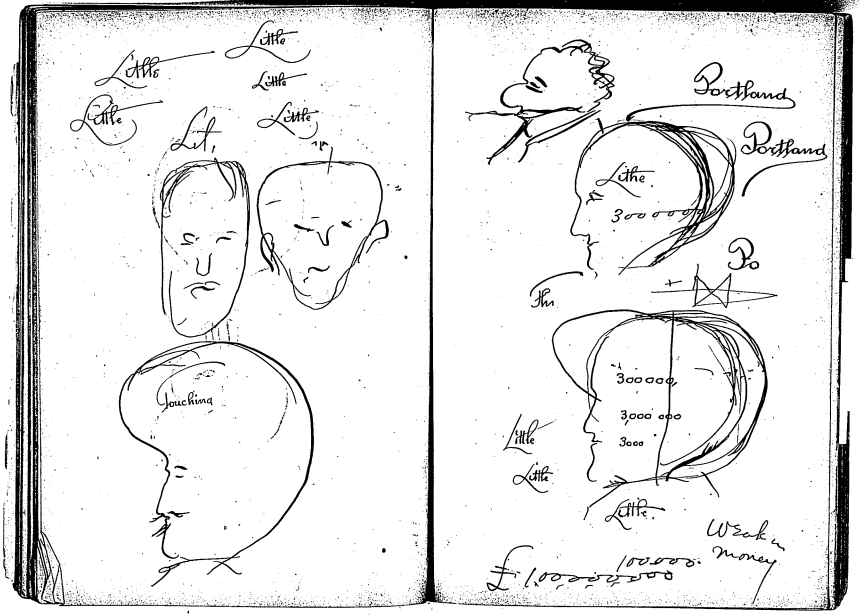
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To Edison House Feb 17 88

409 From the Office

172 " "

465 From Moffett's desk

349 Engine room

327 over Ceiling to Bell

570 Other Kinsley desks

1 Edisons parlors

one more from Office

Fm 2

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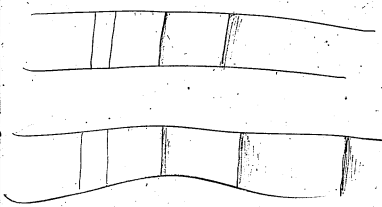

	Jars	Jams	Carboys
	2	2 poor	2
	/	/ "	/
	/	/ "	/
	#		
	/	/ "	/
	/	/ "	/
	/	/ "	/
	pomade	/ "	/
	Carboy		
	1 bad hole		/
	6	/ "	/
	[illegible]	/ "	/
	2 cracked jars		
	12		
	2 cracked jars	11 good poor	

	Poms cups
11 Carboys	2
12 Good poms cups	/
1 badly cracked	1 poor small cup lid
14 Jars good 2 cracked	
11 Jams all poor 2 good 2 not used	
poor binding pot	/
	/
	/
	/
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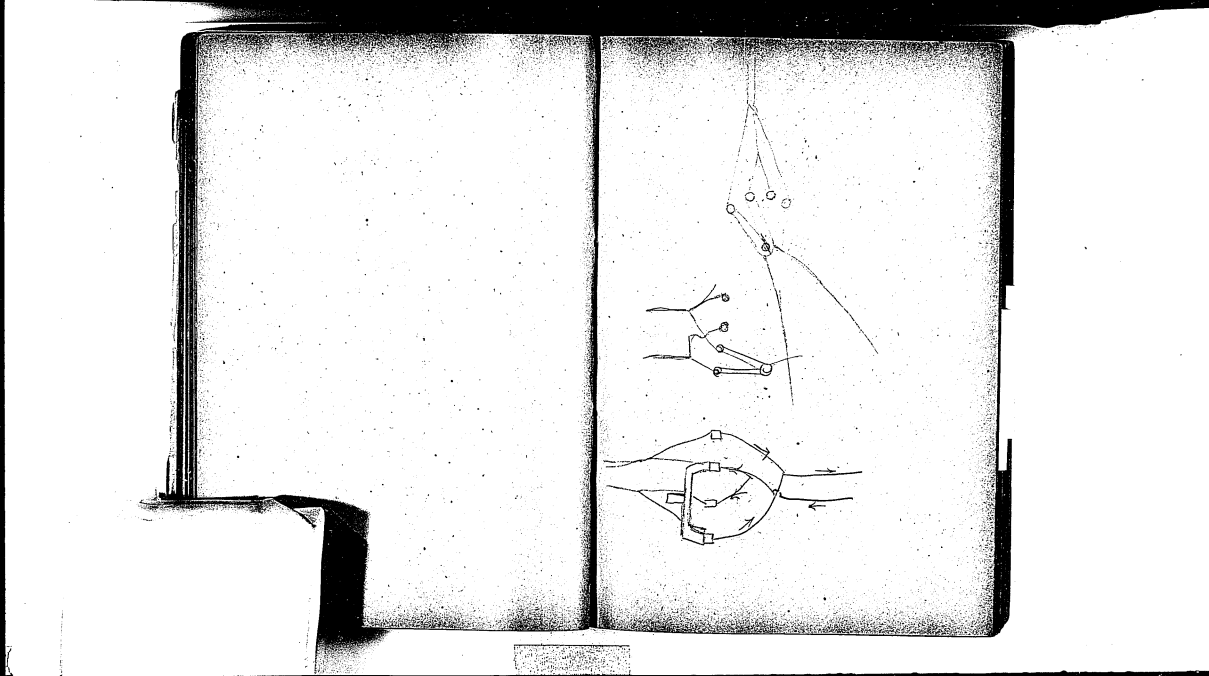
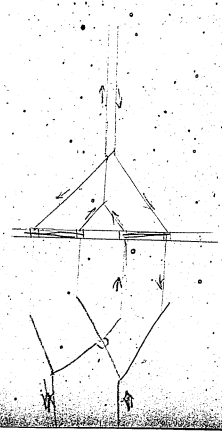
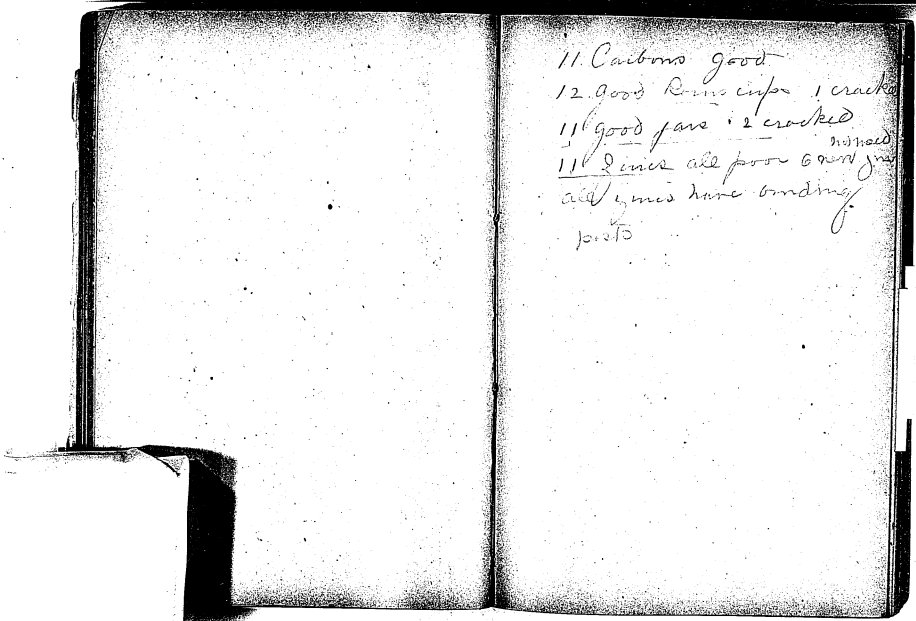
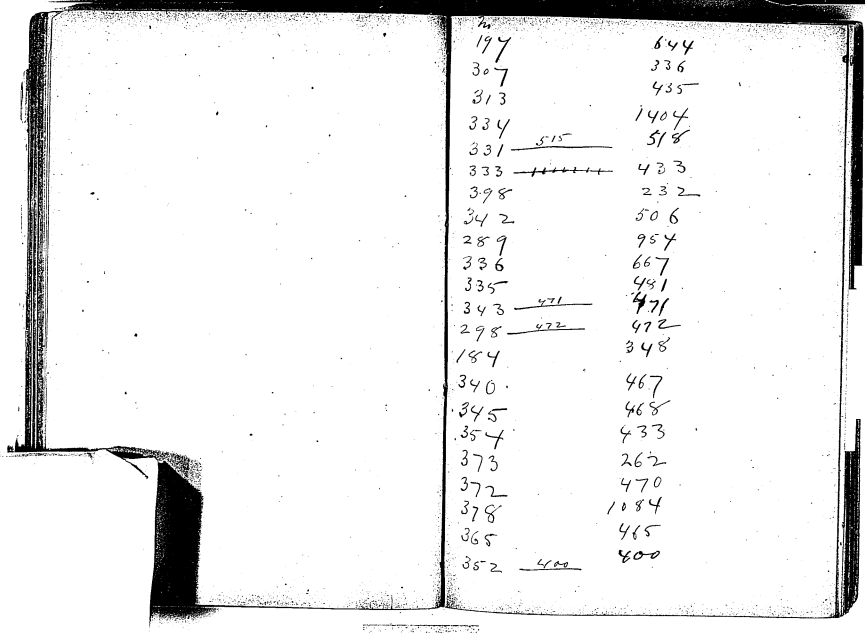
	/
	12
	12 small cracked
	1 badly cracked






11. Cartons good
12. good Receipts 1 cracked
11 good jars 2 cracked
11 pints all poor & worn jars
all pints have binding
posts



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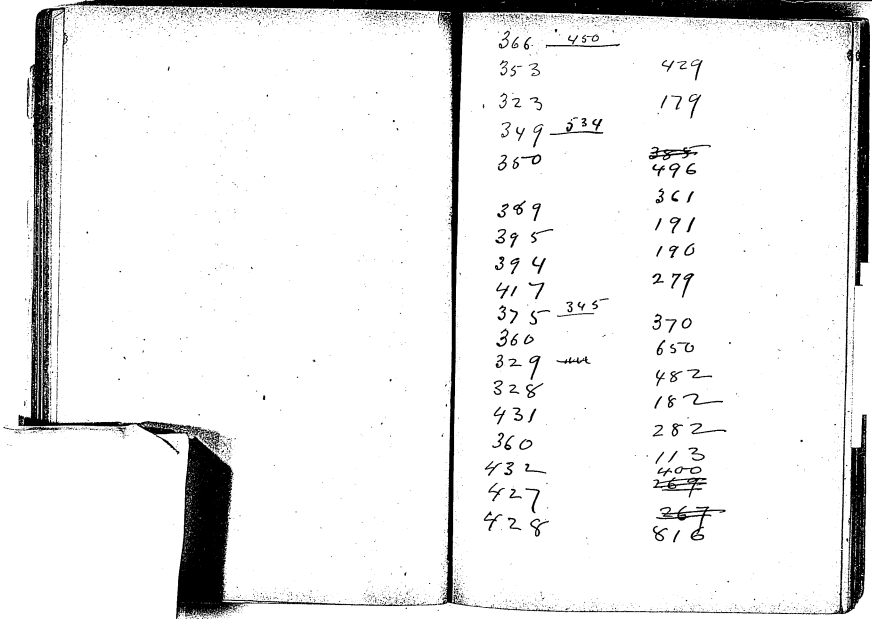

366 450
353
323
349 534
360
389
395
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375 345
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431
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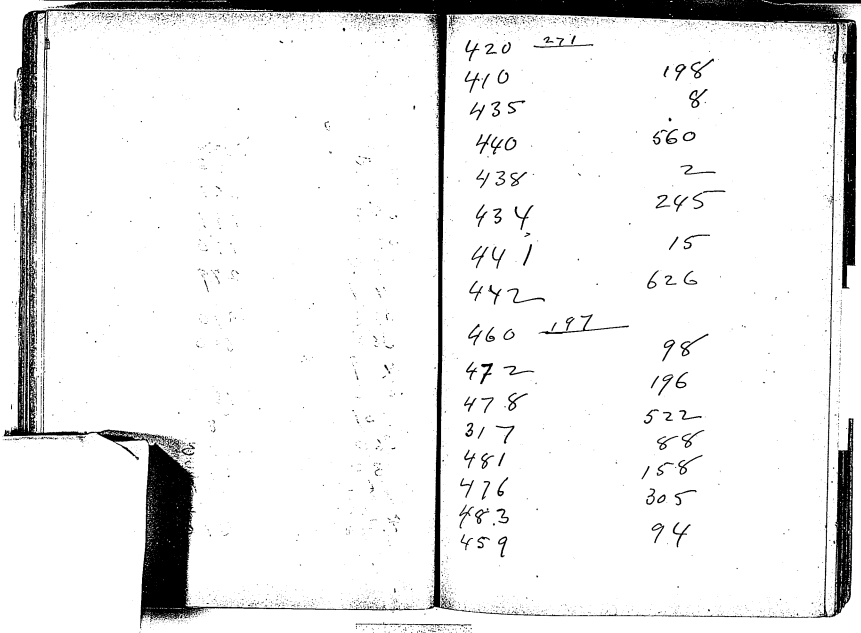
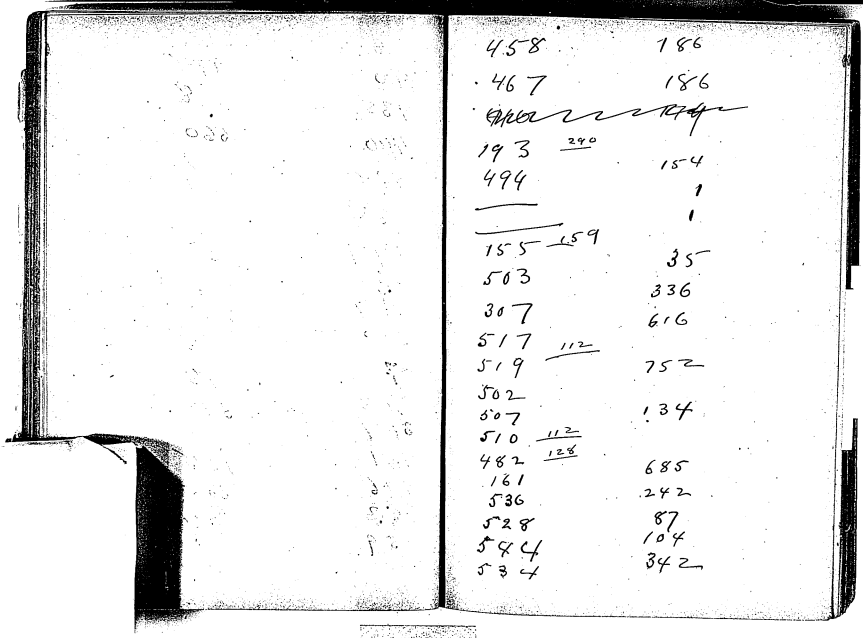
816



420	271	
410		198
435		8
440		560
438		2
434		245
441		15
442		626
460	197	
472		98
478		196
317		522
481		88
476		158
483		305
459		94



458
467
193 240
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155 159
503
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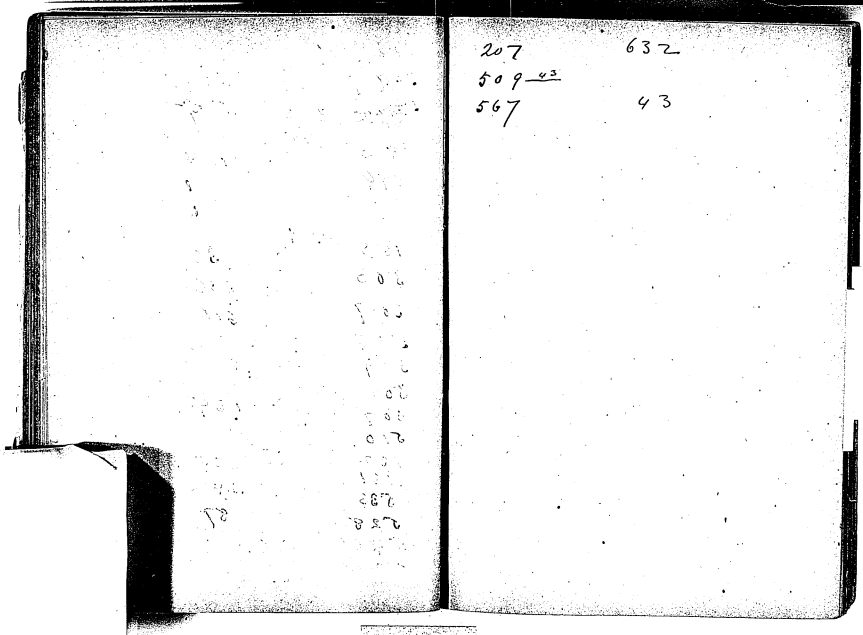
207
632
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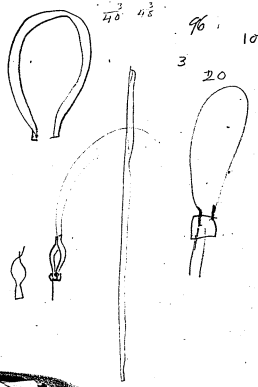
567
43

3000/ 45000 /



15 14 106
3/40 3/5 96 100
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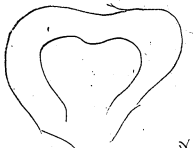
9ne



15.000.000
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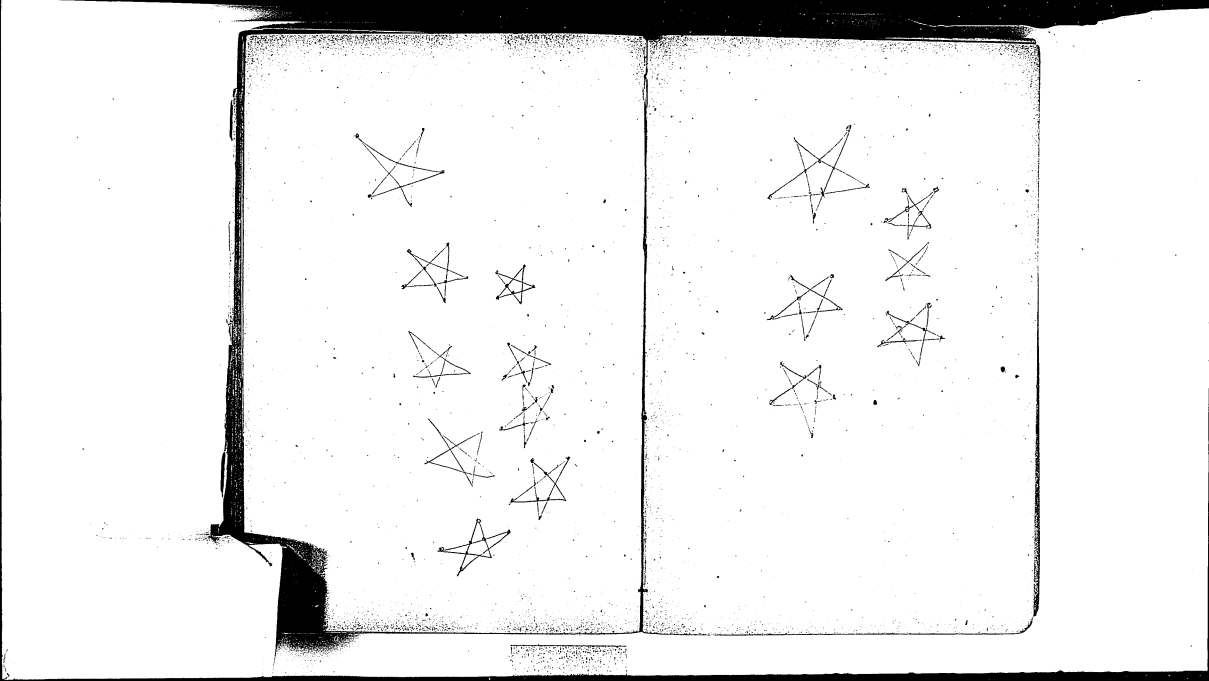
Pol-m obtid-4 co. final cal-
tima Inptim 4,30

Lab. 22 horas 12

Lab. 20 horas 84 ~~57~~ 8



12
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176
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Nums
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134 Busted
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Nums
144
Busted
6 Busted
131
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176
81 20
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145 Busted
92 Busted
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35
142 Busted
63.9
176
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422
422 4030

22 / 141 = (8360
124 780
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176
94
90
126 Busted
181
181
131
131
— Busted at 1st time made app.
94
68 Busted
81
176
81
81
131
131
131
131
145 Busted
176
112 Busted
131 2810

44
140 Busted
131
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176
176
176
131
94
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176

39 Busted

176
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176
12
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2564
+ Rec (141 Busted ago)

11397 hens with 14

Breakages

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14 | 11397 | 814
     112
      19
      14
       57
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   11397
    1506
14 | 9891 | 706
     98
      91
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265	74	34	Brinkley
164	74		
172	74		34 — 92
158	74		79 — 112
270	143 Brinkley		"
242	71		
197	74		
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12 – 143 | 34 – 72 | 56 – 60

78

72		110
72		110
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143	Bunted	60
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180		110 Bunted
86		
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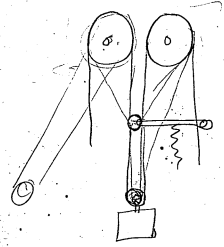

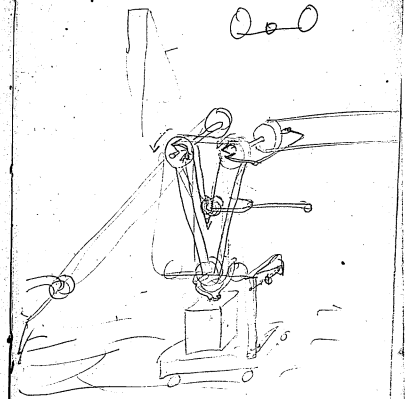

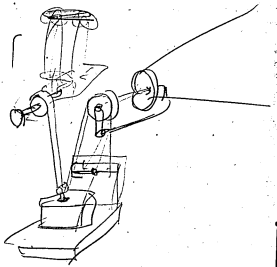

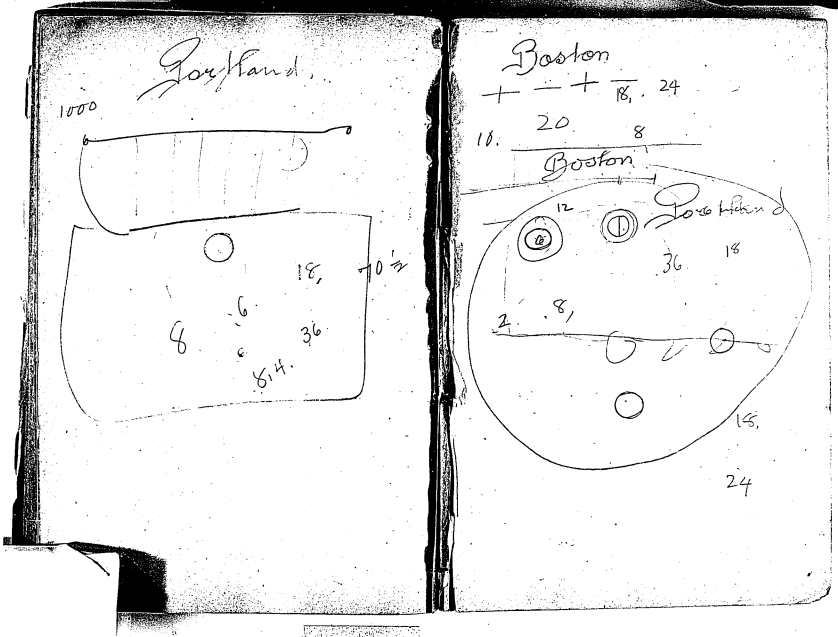
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